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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,699	07/15/2003	Masaya Tamaru	0649-0900P	4919
2292	7590	10/05/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			YODER III, CHRISS S	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,699

Applicant(s)

TAMARU ET AL.

Examiner

Chriss S. Yoder, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Oda (US Patent # 6,831,692).
2. In regard to claim 4, note Oda discloses the use of an image pickup apparatus, comprising a solid-state image pickup device where high-sensitivity pixels and low-sensitivity pixels are formed (column 4, lines 10-17) and a calculator which calculates an exposure value based on at least one of light quantity detected by said high-sensitivity pixels and light quantity detected by said low-sensitivity pixels (column 10, lines 42-48).
3. In regard to claim 5, note Oda discloses the use of an image pickup apparatus, comprising an image pickup device which picks up a subject image (column 4, lines 10-17), a received light quantity detector where high-sensitivity detectors and low-sensitivity detectors are formed (column 4, lines 10-17), and a calculator which calculates an exposure value based on at least one of light quantity detected by said

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high-sensitivity detectors and light quantity detected by said low-sensitivity detectors (column 10, lines 42-48).

4. In regard to claim 6, note Oda discloses the use of a photometer for calculating an exposure value of an image pickup apparatus, comprising a received light quantity detector where high-sensitivity detector and low-sensitivity detectors are formed (column 4, lines 10-17), and a calculator which calculates the exposure value based on at least one of light quantity detected by said high-sensitivity detectors and light quantity detected by said low-sensitivity detectors (column 10, lines 42-48).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serizawa et al (US Patent # 6,593,970) in view of Jones (US Patent # 6,924,841).

6. In regard to claim 1, note Serizawa discloses the use of an image pickup apparatus, comprising a solid-state image pickup device where pixels are formed (column 8, lines 12-20 and figure 1: 1010), control means for calculating an exposure value based on values of signal detected by said pixels, which are output from said solid-state image pickup device (column 8, lines 41-67), and signal processing means

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for reading data of an image picked up by said solid-state image pickup device and processing according to the exposure value (column 8, lines 41-67).

Therefore, it can be seen that the Serizawa device lacks the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup and that the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones discloses the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup (column 4, lines 3-35), and by combining this with the Serizawa device, the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones teaches that the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup is preferred in order to capture a single image instead of two, thereby reducing the amount of memory needed and to reduce the effects of changes in the scene that occur between capturing the two images (column 1, lines 52-65).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Serizawa device to include the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup in order to capture a single image instead of two, thereby reducing the amount of memory needed and to reduce the effects of changes in the scene that occur between capturing the two images, as suggested by Jones.

7. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skow (US PGPub # 20030184659) in view of Jones (US Patent # 6,924,841).

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8. In regard to claim 2, note Skow discloses the use of an image pickup apparatus, comprising an image pickup means for picking up a subject image (paragraph 0016), received light quantity detecting means where pixels are formed (paragraph 0016, the pixels of the sensor), and control means for calculating an exposure value based on signal showing received light quantity detected by said pixels, which are output from said received light quantity detecting means, and controlling said image pickup means to pick up a subject image according to the exposure value (paragraphs 0022-0024).

Therefore, it can be seen that the Skow device lacks the use of high-sensitivity pixels and low-sensitivity pixels forming the light quantity detecting means and that the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones discloses the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup (column 4, lines 3-35), and by combining this with the Skow device, the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones teaches that the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup is preferred in order to capture an image having a high dynamic range so that all areas of the image, including light areas and dark areas are captured sufficiently (column 1, lines 28-40). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Skow device to include the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup in order to capture an image having a high

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dynamic range so that all areas of the image, including light areas and dark areas are captured sufficiently, as suggested by Jones.

9. In regard to claim 3, note Skow discloses the use of a photometer which calculates an exposure value of the image pickup apparatus, comprising received light quantity detecting means where pixels are mounted (paragraph 0016) and calculating means for calculating the exposure value based on signal showing received light quantity detected by said pixels, which are output from the received light quantity detecting means (paragraph 0024).

Therefore, it can be seen that the Skow device lacks the use of high-sensitivity pixels and low-sensitivity pixels forming the light quantity detecting means and that the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones discloses the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup (column 4, lines 3-35), and by combining this with the Skow device, the exposure value is calculated based on values of signal detected by the high-sensitivity pixels and values of signal detected by the low-sensitivity pixels. Jones teaches that the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup is preferred in order to capture an image having a high dynamic range so that all areas of the image, including light areas and dark areas are captured sufficiently (column 1, lines 28-40). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Skow device to include the use of high-sensitivity pixels and low-sensitivity pixels forming the solid-state image pickup in order to capture an image having a high

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dynamic range so that all areas of the image, including light areas and dark areas are captured sufficiently, as suggested by Jones.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US006771312B2: note the use of two exposure periods used to synthesize the exposure of an image.

US006859230B2: note the use of the image signal to adjust exposure time.

US 20020027189: note the use of different sensitivity levels in pixels.

US006765611B1: note the use of different sensitivity levels in pixels.

US006970195B1: note the use of different sensitivity levels in pixels.

US004819074: note the use of different sensitivity levels in pixels.

US006211915B1: note the use of different sensitivity levels in pixels.

US005420635A: note the use of an exposure controller using image signals or photometry device to control exposure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (571) 272-7323. The examiner can normally be reached on M-F: 8 - 4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CSY
September 28, 2006



DAVID OMETZ
SUPERVISORY PATENT EXAMINER